

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:	§	Art Unit:	2193
Yen-Kuang Chen et al.	§		
	§	Examiner:	David H. Malzahn
Serial No.: 10/687,953	§		
	§	Conf. No.:	9871
Filed: October 17, 2003	§		
	§	Docket:	ITL.2125US
For: Method and Apparatus	§		P15772
for Efficient Bi-Linear	§		
Interpolation and Motion	§	Assignee:	Intel Corporation
Compensation	§		

Mail Stop **Appeal Brief-Patents**  
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P.O. Box 1450  
Alexandria, VA 22313-1450

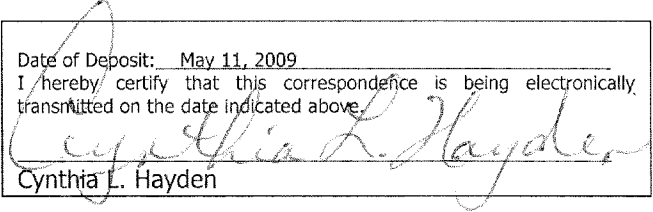
**RESPONSE TO THE NOTICE OF  
NON-COMPLIANT APPEAL BRIEF**

Sir:

In response to the Notice of Non-Compliant Appeal Brief mailed March 9, 2009, please find attached a correction version of the "Summary of Claimed Subject Matter."

Date of Deposit: May 11, 2009

I hereby certify that this correspondence is being electronically transmitted on the date indicated above.

  
Cynthia L. Hayden

## V. Summary of Claimed Subject Matter

1. A method for performing a bi-linear interpolation or a motion compensation of a digital image or video, the method comprising:

decoding a first shuffle instruction (item 1001, Fig. 10a, page 45, line 22 - page 46, line 8) and a first multiply-add instruction (item 70, Fig. 7a, page 33, lines 1-6), each of an instruction format comprising a first operand field and a second operand field (items 602, 603, Fig. 6a, page 26, lines 1-16),

responsive at least in part to said first shuffle instruction, generating a first packed data having a first plurality of byte data elements including an  $a_1$  byte data element, and at least two copies of each  $a_2$ ,  $a_3$ , and  $a_4$  byte data elements (items 1321, 1323, Fig. 13b, page 52, lines 3-20); and

responsive to said first multiply-add instruction, wherein the first operand field of said first multiply-add instruction specifies said first packed data and the second operand field specifies a second packed data having a second plurality of byte data elements including at least two copies of each of  $b_1$  and  $b_2$  byte data elements, performing an operation  $(a_1 \times b_1) + (a_2 \times b_2)$  to generate a first 16-bit data element of a third packed data, performing an operation  $(a_2 \times b_1) + (a_3 \times b_2)$  to generate a second 16-bit data element of the third packed data, and performing an operation  $(a_3 \times b_1) + (a_4 \times b_2)$  to generate a third 16-bit data element of the third packed data (items 1322, 1324, Fig. 13b, page 52, lines 3-20).

13. A machine-accessible medium including data to perform a bi-linear interpolation or a motion compensation of a digital image or video such that, when accessed by one or more machines, causes said one or more machines to:

shuffle a first  $2n+1$  byte elements of a first line of data to generate a first packed data comprising at least a first  $4n$  byte elements including  $2n-1$  duplicated elements of the first  $2n+1$  byte elements (item 1321, Fig. 13b, page 52, lines 3-20);

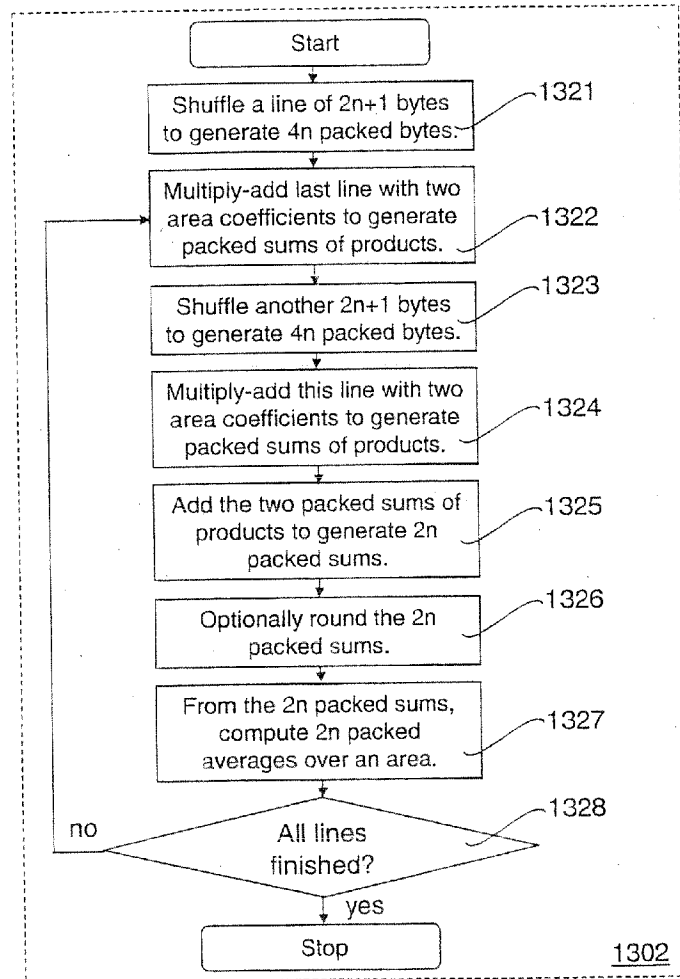
shuffle a second  $2n+1$  byte elements of a second line of data to generate a second packed data comprising at least a second  $4n$  byte elements including  $2n-1$  duplicated elements of the second  $2n+1$  byte elements (item 1323, Fig. 13b, page 52, lines 3-20);

multiply-add the first packed data with at least a first two byte coefficients to generated a third packed data including sums of products (item 1322, Fig. 13b, page 52, lines 3-20);

multiply-add the second packed data with at least a second two byte coefficients to generated a fourth packed data including sums of products (item 1324, Fig. 13b, page 52, lines 3-20); and

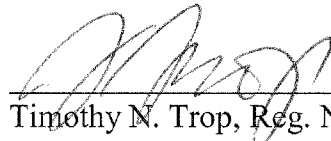
add corresponding sums of products of the third and fourth packed data to generate a first packed result (item 1325, Fig. 13b, page 52, lines 3-20).

FIG. 13b



Respectfully submitted,

Date: May 11, 2009

A handwritten signature in dark ink, appearing to read "Timothy N. Trop", is written over a horizontal line.

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